

ISO 14001

# 2007 EMS Implementation Institute

*The Virginia Department of Environmental Quality (DEQ), in cooperation with Virginia Tech's Center for Organizational and Technological Advancement (COTA) and the U.S. EPA Office of Water, is pleased to support an opportunity for training and technical assistance to ten publicly owned Virginia wastewater treatment plants within the Chesapeake Bay Watershed.*

**David Paylor**, Director, VDEQ



This offer of EMS training supports implementation of the Regulation for Nutrient Enriched Waters and Dischargers within the Chesapeake Bay Watershed (9VAC25-40-70) adopted by the State Water Control Board (SWCB) in September 2005. WWTPs at private or federal facilities or those located outside the Bay Watershed are welcome to participate in the program, but will not be eligible for financial assistance.

## Baseline Environmental Review

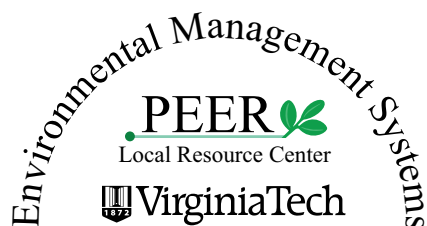
Prior to Workshop 1, Virginia Tech meets with the Chief Operating Officer and the four-member EMS team at their locality. The EMS team spends a day with Virginia Tech to walk the facility to observe environmental practices. A debriefing meeting is held at the end of the day, followed by a written assessment within two weeks.

## Team Conference Call

Mid-way between each workshop, Virginia Tech schedules a one hour conference call with your team to see how things are developing, and to offer any aid and/or coaching.

## Senior Management Conference Calls

Virginia Tech asks your senior manager to conduct an EMS Management Review between workshops. The week prior to Workshops 2, 3, and 4, Virginia Tech conducts a conference call with your senior management representative to gauge the team's EMS progress.



## WORKSHOP 1

### February 13–15, 2007

Your four-member team is introduced to the Environmental Management System principles, the EMS development process, compliance management issues and ISO 14001 EMS requirements. Virginia Tech clarifies the expectations of the facility team, benefits of implementing an EMS, what it takes to be successful, and the expectations that are placed on employees at the facility.

In addition, the team defines their facility's scope (in writing) and analyzes the baseline environmental review, which is conducted by Virginia Tech prior to this workshop. The ISO 14001 elements taught and practiced include:

- Environmental Policy
- Environmental Aspects
- Legal and Other Requirements
- Resources, Roles, Responsibility and Authority
- Control of Documents

Your team is provided time during workshop to discuss and begin an "action plan" for implementation of the homework assignment to be completed prior to Workshop 2.

## WORKSHOP 2

### May 8–10, 2007

All EMS team shares completed homework assignments from Workshop 1. Additionally, each team has access to EMS Institute archives to maximize information sharing.

During the second workshop, your team receives intensive training on the following ISO 14001 elements:

- Objectives, Targets and Programs
- EMS Documentation
- Operational Control
- Emergency Preparedness and Response

Your team is provided multiple opportunities during this workshop to discuss and begin an "action plan" for implementation of the homework assignment to be completed prior to Workshop 3.

## Homework Review

On the morning prior to the noon start of Workshops 2, 3, and 4, your team is scheduled for an individual one-hour session with one of the EMS classroom instructors to review the completion of the homework assignment. Instructors rotate the teams they review each workshop.

## One Day Technical Site Visits

Virginia Tech offers a one-day technical site visit to be used at the discretion of your locality. This day with the Virginia Tech lead instructor may be spent training employees, reviewing documentation, or may be partnered with the EMS Audit Assessment.

## EMS Audit Assessment

After full implementation of the EMS and completion of Workshop 4, Virginia Tech conducts an on-site audit at the facility. During this two-day audit, each EMS component is evaluated to determine if the EMS satisfies the ISO 14001 requirements.

## WORKSHOP 3

### August 7–9, 2007

As a result of completing homework from Workshop 2, your team has identified actual and potential activities associated with their significant environmental aspects and develops operational controls, including written procedures. The team has set objectives and targets to improve environmental performance; then develops environmental management programs to accomplish each objective and target. Job skills and knowledge associated with significant environmental aspects need to be identified and training requirements reviewed and updated. During Workshop 3 your team works on the following ISO 14001 elements:

- Competence, Training and Awareness
- Communication
- Monitoring and Measurement
- Management Review

Homework prior to Workshop 4 is to review and update emergency response plans, develop training schedules to identify specific job related competency gaps, prepare a communication strategy, and begin formalizing the management review process.

## WORKSHOP 4

### December 11–13, 2007

The team determines appropriate monitoring and measurement strategies to gauge the performance of the EMS, learns skills for conducting required internal audits, begins to develop procedures for handling EMS non-conformances and control of records, and initiates management review procedures. Workshop 4 addresses the following ISO 14001 elements:

- Evaluation of Compliance
- Nonconformity, Corrective and Preventive Action
- Control of Records
- Internal Audit

You will then develop a schedule for achieving full implementation of the EMS, and select tentative dates for the EMS follow-up audit.



### For More Information

For further information about the institute and these workshops, contact:  
Bob Herbert at [bherbert@vt.edu](mailto:bherbert@vt.edu) or  
(540) 853-8275

For course information, visit:  
[www.cota.vt.edu/vtems/course.html](http://www.cota.vt.edu/vtems/course.html)

For more information about  
EMS Peer Local Resource Centers, visit:  
[www.cota.vt.edu/vtems/](http://www.cota.vt.edu/vtems/)  
[www.peercenter.net](http://www.peercenter.net)

Participants attend the EMS Implementation Institute, composed of four workshops, at The Hotel Roanoke and Conference Center, located at 110 Shenandoah Avenue in downtown Roanoke.